

# THE TRANSPORTATION LINK



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## Small Business Innovation Contributes to Technological Leadership

**T**echnological research is an exciting field for our small businesses to be involved in. I encourage small, women-owned and disadvantaged businesses to consider participating in the Department of Transportation's (DOT) Small Business Innovation Research (SBIR) Program. You have so much to contribute to DOT's research and development efforts.

Safety is DOT's **#1** priority and February 13-19 is *Child Passenger Safety Week*. In this month's newsletter, we provide you with information on the importance of having your children use booster seats in cars. We explain what form of child restraint is appropriate for a child's age and size. Please read this article carefully and join in partnership with DOT to be an advocate in your community to encourage all who have children to remember to, "Boost 'Em Before You Buckle 'Em." It could save their lives.

February is *Black History Month* and as such it is a time to reflect on the historical contributions that African Americans have made to our nation. I hope you will take the time this month to participate in an activity that expands your knowledge of Black History. This edition of our newsletter highlights a National Park Service web site on Black History and our partnership with Historically Black Colleges and Universities.

President Clinton believes strongly that science and technology "have become the engine of America's economic growth." In a recent press release he stated that, "With rapid growth, increased productivity and rising standards of living, the U.S. economy is thriving, in large part because of our technological leadership."

At the January 2000 DOT Transportation Research Board Annual Meeting, Secretary Rodney E. Slater reiterated these sentiments when he encouraged participants to, "...join together to generate a spirit of innovation to achieve transportation excellence in the 21<sup>st</sup> century." One of his four strategies to achieve this goal is to, "Promote basic research and the development of enabling technologies that could create breakthroughs in transportation..."

The Department of Transportation's (DOT) Small Business Innovation Research (SBIR) Program provides small and disadvantaged businesses with the opportunity to help implement this important strategy.

### ***DOT's Small Business Innovation Research (SBIR) Program***

The SBIR Program was created to stimulate technological innovation, utilize small businesses to meet federal research and development needs, encourage participation by minority and disadvantaged businesses in technological innovation, and increase private sector commercialization of innovations derived from federal R&D. Initiated by the Small Business Act of 1982 and further expanded under the 1992 Small Business Research and Development Act, this unique program provides a means to encourage technical and scientific enterprise so vital in stimulating invention and innovation, while nurturing economic growth.



The DOT SBIR Program is coordinated by the Research and Special Programs Administration (RSPA) at the Volpe National Transportation Systems Center in Cambridge Massachusetts. The Volpe Center was chosen because it has extensive background in innovative programs such as technology transfer; cooperative R&D agreements; outreach projects involving a cross-section of the transportation

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community; and technical assistance to state and local governments, as well as private organizations.

Eight operating administrations within DOT participate in the SBIR Program including: the Federal Aviation Administration (FAA), the Federal Highway Administration (FHWA), the Federal Railroad Administration (FRA), the Federal Transit Administration (FTA), the Maritime Administration (MARAD), the National Highway Traffic Safety Administration (NHTSA), the Research and Special Programs Administration (RSPA), and the United States Coast Guard (USCG).

On an annual basis, each of these (DOT) operating administrations develops research topics for the DOT SBIR Program Solicitation that reflect their own priority transportation R&D initiatives. These priorities coordinate with the over-all direction of the President's National Transportation Policy and the Secretary's Strategic Plan.

### ***DOT's YEAR 2000 SBIR Solicitation***

Twenty-three transportation research topics for 2000 were assembled in January 19. The solicitation for proposals on these topics will be electronically posted February 15 on the SBIR web site at:

<http://www.volpe.dot.gov/sbir>.

At this location, solicitations will be available for viewing and they will be posted as a downloadable Microsoft Word file and as a PDF file. This year, it was announced that electronic submission of



SBIR proposals is also an option. The closing date for responses to the solicitation proposal is May 1, 2000. Companies submitting proposals will be advised of their status by letter in October 2000.

### ***DOT's SBIR Contract Award Process***

SBIR works by providing up to \$850,000 in "seed money" to each company awarded participation in the Program. DOT's SBIR Program is organized into three phases. In Phase I, companies view the annual list of SBIR topics that reflects the respective research and development

priorities for DOT operating administrations as described above and submit proposals by May. Phase I is for conducting feasibility-related experimentation or theoretical research on a SBIR topic. The maximum value of a Phase I award is \$100,000. The period of performance for Phase I is up to 6 months.

These proposals are pre-screened for basic requirements and are evaluated by DOT technical staff. The primary factors for Phase I award evaluation are the scientific and technical merit of the proposal and its relevance to DOT requirements. As a result of Phase I efforts, some contractors are invited to submit a

Phase II proposal to continue the research as a Phase II effort.

Phase II is the principal research or R&D effort. Phase II awards are based on the results of the Phase I efforts, technical merit, agency priority, commercial applications, and the availability of funds. Phase II awards have a maximum value of up to \$750,000 and a period of performance of approximately two years.

Phase III of the SBIR Program allows the company to pursue commercial application of its innovation. No additional SBIR funding is set aside during this phase. Private sector investments are the usual source for the Phase III process although a federal agency may also fund Phase III activities for its own use.

### ***Eligibility***

To be eligible to participate in an SBIR Program, a company must be independently owned by U.S. citizens (or permanent resident aliens) and operated in the United States. The total number of people under the company's employ (including any affiliates) must not exceed 500. The company must be a "for profit" organization and cannot be dominant in its field of expertise. The principal investigator or researcher described in the proposal must be both technically qualified in the field of endeavor and a company employee at the time of the award and throughout the course of the project.

### ***The Bottom Line***

The SBIR Program creates a win/win situation for DOT and small businesses. Studies have shown that small innovative firms provide more benefit per research dollar than large firms and are the greatest source of new technologies. The SBIR Program capitalizes on this by directing federal R&D dollars to these firms. Small businesses benefit by receiving the financial support and backing of the U.S. DOT.

#### ***For More Information***

*The US DOT SBIR Solicitation and information on the SBIR Program are available on the Internet at the US DOT SBIR Web Site: [www.volpe.dot.gov/sbir](http://www.volpe.dot.gov/sbir).*

*The SBIR Program does not maintain a mailing list for paper copies of the SBIR Solicitation. You may register to be notified when the next DOT SBIR Solicitation is released on Internet at: [www.volpe.dot.gov/procure/index.html](http://www.volpe.dot.gov/procure/index.html).*

*Additional questions on the US DOT SBIR Program, should be directed to:*

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494-2051 Fax: (617) 494-2370*

## **The National Park Service Celebrates Black History**

The National Park Service has a very interesting web site entitled *Celebrating Africa American History & Culture: Our Shared History* located at <http://www.cr.nps.gov/aahistory/>



This web site provides a central location for National Park units to bring together their parts of the story of African American history. Included are hyperlinks to National Park Service sites on *Historic Places of the Civil Rights Movement* and *Frederick Douglass*.

Information on the Historic South, the Underground Railroad and hyperlinks to the many National Park Service sites dedicated to preserving African American heritage are included.

Lastly, the site includes information on the many National Park Service books and magazines on Black History.



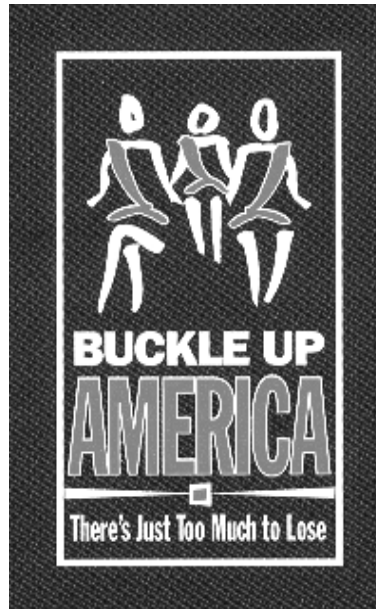


## Buckle Up America and Put Our Children in Booster Seats

Traffic crashes are the leading cause of death for children of every age from 6 to 14 years – a fact that can be linked in part, to the reality that most children are unbuckled or improperly restrained in vehicles. One of the most common mistakes parents make when restraining children is that they don't understand the different stage of child restraint use throughout a child's growth.

Since many state laws only require child safety use up to age three, many parents assume older kids are safe in just a seat belt. The message parents need to learn is this: When children outgrow forward-facing convertible seats, they need to be restrained in belt-positioning booster seats – until they are big enough to fit properly on an adult seat belt. Children who cannot sit with their backs straight against the vehicle seat back cushion, with knees bent over

adult lap belt rides up over the stomach and the shoulder belt cuts across the



- Child safety seats – including boosters – are very effective in saving children's lives during crashes.
- All children age 12 and under should sit properly restrained in the back seat.
- It is critical for parents not to move their children too quickly into adult seat belt systems, skipping booster seats altogether.
- Parents should have their child safety seats inspected by a certified child safety seat technician in their community.

*For more information on booster seats or to locate a child safety seat technician near you, simply click on <http://www.nhtsa.dot.gov/people/injury/childps> or call 1-888-DASH-2-DOT.*



a vehicle's seat edge without slouching, are not big enough for adult seat belts.

Even the most safety-conscious parents are often not aware of the need for booster seats or the danger their children face when improperly restrained in an adult seat belt. On a small child, the

neck. In a crash, this could cause serious or even fatal injuries.

The statistics are startling. Restraint use for children from birth to age one is 97%, and ages one to four 91%. From age 5 to 15, restraint use plummets over 20 points to 68.7%. Over 47% of fatally injured children ages four to seven are completely unrestrained. One National Highway Traffic Safety Administration (NHTSA) study showed that only 6.1% of booster-age children were restrained in a booster seat.

Children generally outgrow convertible child safety seats when they are about 40 pounds. From 40 to about 80 pounds and about 4 feet 9 inches tall, children should always be seated in a belt-positioning booster; lifting them so adult lap/shoulder seat belts are "positioned" correctly and safely. Plus, booster seats offer children better visibility and comfort.

Child Passenger Safety Week is February 13-19, 2000. At this time we want to remind parents that:

### ***IRS CD for Small Business***

The Internal Revenue Service (IRS) has available a *Small Business Resource Guide - CD 2000* that provides critical tax information to small businesses. Included are forms, instructions, and various publications. The CD also provides valuable business information from a variety of government agencies, non-profit organizations, and educational institutions. Essential startup information needed by new small businesses is included.

Single copies can be ordered for free at [http://www.irs.gov/bus\\_info/sm\\_bus/smbus-cd.html](http://www.irs.gov/bus_info/sm_bus/smbus-cd.html)

## **“Even a High-tech World Depends on Concrete Foundations, Bridges and Roads”**

Alvin Robertson, President of Arkansas Best Concrete Finishing Inc. of Little Rock, Arkansas is our featured success story this month. Mr. Robertson grew up working alongside his father in his family concrete business. When his father wanted to slow down, Mr. Robertson acquired the business.



The company now employs 10 to 15 people, depending upon the size of a specific job. They just bought a new curb-and-gutter machine, enabling them to bid on more contracts and they have just begun to set up a web site.

Mr. Robertson points out that “good” concrete finishers are now scarce. The time and the hard work required to learn this skilled trade, combined with the relatively low wages it pays, did not attract many new workers in recent years. As a result, there is a shortage of concrete

finishers who can and will “do the job right.”

Arkansas Best Concrete provides necessary training for this specialized, essential trade. The company aggressively pursues ways to make labor rates both affordable within the contract and attractive to workers. Robertson reaches out to, as he puts it, those “who need a job, as long as they are willing to work hard,” so that young people who have little job experience can learn the trade. Even a high tech-world depends on concrete foundations, bridges and roads he noted.

Robertson appreciates the help he received from the Arkansas State Office of Highway Transportation DBE Support Services Office. He attended seminars and workshops sponsored by the DBE program. He says he used that knowledge to incorporate his father’s business, accomplish the transfer of the state contractor’s license with its

“grandfathered” provisions for doing business in three surrounding states, and obtain state and private contracts.

Arkansas Best Concrete is now surfacing a three-quarter mile long bridge for the Arkansas Highway Department as well as working on a large paving contract for the Arkansas National Guard. Robertson hopes that, as his business continues to grow, he will be able to expand into the general contracting field

*For more information on Arkansas Best Concrete Finishing, Inc. contact Alvin Robertson by phone at 501-221-0724 or by fax at 501-312-2832.*

*For more information on the DOT DBE program, including a listing of state DBE contacts, view the OSDBU web site at <http://osdbuweb.dot.gov/business/dbe/index.html#con>.*

## **DOT Partners with Historically Black Colleges and Universities**

The U.S. Department of Transportation (DOT) administers the Entrepreneurial Technical Training and Assistance Program (ETTAP) working in partnership with 15 Minority Educational Institutions (MEIs) including Historically Black Colleges and Universities (HBCUs).

Through Partnership Agreements, the efforts of these MEIs, the government and the private sector focus on providing transportation-related assistance and procurement information to small, women-owned and disadvantaged businesses. The program also provides training and development to students in transportation-related fields through the use of internships and fostering interdisciplinary opportunities for students in the field of transportation.

Two of the HBCUs that DOT works with have taken leadership roles in their local business community by focusing on transportation and technology.

### **Hampton University, Virginia**

Hampton University is a privately endowed school offering classes, programs and training opportunities related to transportation issues. Hampton’s focus is to make education available to all students any time, any place.

The Hampton University transportation department focuses on developing new transportation methodologies through research, education and technology transfer.

Hampton features a Distance Learning Center that has proven its merits in advancing their aviation program. They have conducted extensive research in Intelligent Transportation Systems (ITS). Recently, the school established an interdisciplinary degree in transportation management and policy studies.

### **Florida Agricultural and Mechanical University, Florida**

Florida A&M (FAMU) is part of the state university system. Their Summer Transportation Institute Advanced Pilot (STI Pilot) Program has achieved national recognition for its excellence in technology transfer to high school students and teachers. The purpose of the STI Pilot Program is to stimulate interest in the opportunities that exist in the transportation industry.

The Pilot Institute focused on advanced topics of GIS Applications, Transportation Systems Innovations and Web Development, ITS GPS Tracking, Advanced Transportation Systems and Transportation Safety.

*To learn more about ETTAP and the participating Minority Educational Institutions, visit the OSDBU web site at: <http://osdbuweb.dot.gov/business/mp/mktpkg3.html>*

## ***National SBIR Conference***

The U.S. Small Business Administration (SBA), in partnership with federal agencies and private companies, is co-sponsoring a national Small Business Innovation Research (SBIR) Conference in Biloxi, Mississippi on February 27 through March 1, 2000.

The purpose of this conference is to provide marketing and outreach to the Historically Black College and University (HBCU) and the Small Disadvantaged Business (SDBU) communities. In the past, these organizations have not benefited from the Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) programs, which are designed to increase the participation of entrepreneurs and small businesses in the federal government's \$1 billion research and development program.

U.S. Department of Transportation (DOT) representatives will participate in this conference to further their efforts to support the HBCU and SDB communities.

*For more information, or to register on-line, visit <http://www.zyn.com/sbir/meeting>*

## **CALENDAR OF EVENTS FOR February/March 2000**

<b>DATE</b>	<b>EVENT</b>	<b>CONTACT</b>
<b>Every 2nd &amp; 4th Tuesday</b>	<b>One-On-One Informational Session Designed to Answer Questions on Gaining Grants/ Contacts through the SBIR and STTR programs. Washington, D.C. Sponsored by SBA</b>	<b>Darrell Williams (202) 887-6709</b>
<b>February 8 - 9</b>	<b>The White House Community Empowerment Zone Board Contracting and Procurement Conference Washington, D.C.</b>	<b>Paula Nesmith 301-650-7498 Fax: 301-587-4138 pnesmith@multiconsultant.com</b>
<b>February 15</b>	<b>The ITS Midwest Semi-Annual Meeting Chicago, IL Sponsored by ITS Midwest</b>	<b>(202) 887-6709</b>
<b>February 27 - March 1</b>	<b>National SBIR Conference Biloxi, Mississippi Sponsored by SBA</b>	<b><a href="http://www.zyn.com/sbir/meeting">www.zyn.com/sbir/meeting</a></b>
<b>March 6-7</b>	<b>JPL/NASA 12th Annual High-Tech Small Business Conference 2000 City of Industry, CA</b>	<b>Margo Kuhn 818-354-5722</b>
<b>March 16-17</b>	<b>The 4th Annual GPS Wireless 2000 Conference San Francisco, CA</b>	<b>Sherman Liebow 888-597-6538 <a href="http://www.gps-wireless.com">www.gps-wireless.com</a></b>

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